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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/893,703 | 06/29/2001 | Reizo Maeda | 010829 | 4945 |

38834 7590 08/27/2004

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WASHINGTON, DC 20036

EXAMINER

ALEJANDRO, RAYMOND

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1745

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/893,703 | MAEDA ET AL. | |
| | Examiner | Art Unit | |
| | Raymond Alejandro | 1745 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This office communication is submitted responsive to the amendment filed 06/24/04. The applicants have overcome the objection (suggestion). Refer to the abovementioned amendment for specific details on applicant's rebuttal arguments. However, the present claims are finally rejected over the same art as seen below and for the reasons of record:

Election/Restrictions

1. Applicant's cancellation of claims 6-8 in the Paper No. 06/24/04 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yuasa et al 5250369.

The instant application is directed to a hydrogen absorbing alloy electrode wherein the disclosed inventive concept comprises the specific polymeric material coated thereon. Other limitations include the specific polymeric materials and the specific weight percent.

With respect to claim 1:

Yuasa et al disclose that a hydrogen absorbing alloy negative electrode for use in storage type battery is prepared through a process in which an alkali-resisting organic high molecule

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such as polyethylene, fluorocarbon polymer or the like, is added as a binding agent to a pulverized hydrogen absorbing alloy, and the resulting mixture is pressed onto or filled into an electrically conductive collector such as punching metal or a foam metal (Col 1, lines 37-45/Col 3, lines 50-67). Other alkali-resisting resins (binding agent) such as carboxymethylcellulose and methylcellulose or poly(vinyl alcohol) can also be employed (Col 14, lines 6-10). *It is noted that the binding agent assists to hold fast or adhere the electrode material to conductive collector.*

Examiner's note: *it is noted that the transitional phrase "composed of" is construed as an open-ended phrase and therefore does not exclude other components.*

Example 1 shows the use of an aqueous solution of poly(vinyl alcohol) (the binding agent) mixed into the hydrogen absorbing alloy powder to form paste; and a foamed nickel porous matrix (the current collector) which is filled with the prepared paste and pressed (EXAMPLE 1/COL 4, lines 1-10). Example 7 further shows the hydrogen absorbing alloy negative electrode is coated with polyethylene (the coating polymeric material) (EXAMPLE 7/COL 4, lines 65-68). *Thus, in this case, the hydrogen absorbing alloy electrode consist of the hydrogen absorbing powder and a binding agent composed of a polymeric material (polyvinyl alcohol) adhered to the current collector, and being coated with polyethylene. Hence, the polymeric material in the coating layer is different from the polymeric material in the binding agent.*

With respect to claims 2-3:

It is disclosed that polyethylene used may be replaced by one of thermoplastic resins such as ABS resin (COL 14, lines 26-30). *It is noted that ABS resin stands for thermoplastic resins*

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made of acrylonitrile-butadiene-styrene copolymer. It is also noted that styrene is an aromatic olefin and butadiene is a conjugated diene.

With respect to claims 4-5:

It is disclosed that the hydrogen absorbing alloy negative electrode contains the resin by an amount of 1.5 wt % of the electrode (COL 5, lines 60-63).

With respect to claim 9:

It is disclosed that the hydrogen absorbing alloy electrode is for use in an alkaline storage battery (ABSTRACT/ COL 1, lines 11-14).

Thus, the claims are anticipated.

Response to Arguments

4. Applicant's arguments filed 06/24/04 have been fully considered but they are not persuasive.
5. The primary contention of applicants' arguments is grounded on the assertion that "*the polyethylene in Yuasa et al does not appear to be applied as an "aqueous polymeric material"*". However, this assertion is respectfully disagreed with because the prior art of record clearly discloses the following, in particular: **EXAMPLE 20** illustrates a hydrogen absorbing alloy negative electrode coated with FEP by dipping a negative electrode plate into a dispersion solution prepared by dispersing FEP powder into an aqueous solution (See EXAMPLE 20).

EXAMPLE 20

A hydrogen absorbing alloy negative electrode coated with FEP by an amount of 0.8 mg/cm² by dipping a negative electrode plate into a dispersion solution prepared by dispersing FEP powder into an aqueous solution of 1.5 wt% PVA, was prepared.

Therefore, the examiner does not understand why applicants have argued that the polymeric material “does not appear” to be applied as an “aqueous polymeric material”. In addition, it is apparent from applicants’ arguments (by employing the language “*does not appear*”) that applicants are not confident and fully convinced about such argumentative statement. In order to provide further evidence demonstrating the electrode of Yuasa et al satisfies the claimed requirement of being coated, the examiner courteously directs applicants’ attention to EXAMPLES 3-16 also illustrating that the hydrogen absorbing alloy negative electrode is coated with either polyethylene, polytetrafluoroethylene, a hydrophobic resin, polyvinylidene fluoride, FEP, FEP mixed with other constituents. Hence, the prior art reference does provide the necessary coating feature as instantly claimed.

6. With respect to applicants’ arguments that “*Applicants further note that Yuasa et al does not appear to clearly state how the polyethylene is coated*”, the examiner firstly contends that that the instant claims are simply directed to a hydrogen absorbing alloy electrode product and thus, the product itself does not depend on the process of making it. Accordingly, the patentability of a product does not depend on its method of production. Secondly, it is further contended that the present claim language is also silent as to how the coating layer is applied or coated thereon, and if that would have been the case, there is no showing of objective evidence demonstrating that the claimed product is necessarily different from the prior art’s product and that such difference is unobvious as required for product-by-process claim limitations.

7. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond Alejandro
Examiner
Art Unit 1745

A handwritten signature in black ink, appearing to read 'RAM', with a horizontal line drawn underneath it.